2. Medical Surveillance and Screening

Objective: To provide lead screening of children at high risk of lead poisoning in a timely manner.

Discussion

The Childhood Lead Poisoning Prevention Act adopted in 1995 had important implications for surveillance and screening. It is best known for requiring universal testing of children. Also significant was the new requirement for reporting all blood lead test results to the Division of Public Health.

OLPP periodically analyzes data on the results of blood lead testing. Among the data reviewed are the overall numbers and percentages of children with blood lead levels in excess of 10 µg/dL and 20 µg/dL, the number and percentage of children on Medicaid who are tested and who have elevated blood lead levels, and the percentage of children tested in priority zip codes who have elevated blood lead levels.

Now that universal testing is fully implemented, the question is not whether children will be tested but whether children at high risk for lead poisoning are tested at appropriate ages. As a general rule, testing at age five, when a child typically enters kindergarten, is of limited value. Children are most vulnerable to lead exposure as toddlers (ages 1 and 2) when hand to mouth activity is most pronounced. Therefore, children on Medicaid and WIC are required to be tested at 12 and 24 months. OLPP's lead screening protocol also gives priority to children at high risk of lead poisoning due to such factors as poverty, age and condition of housing, and location in a priority zip code. The only way to confirm that State lead screening policy is being followed is to analyze the test result data reported to the State.

Analysis of the data by the age of the child, by zip code, and by age of housing will inform OLPP as it prepares its annual outreach and education plan. Other factors to review include the incidence of lead poisoning among the immigrant population as opposed to resident population, and the extent to which repeat lead poisoning cases occur at the same address.

Lead poisoning screening protocols were last revised in 1997. It is time to review whether the protocols need revision or expansion. OLPP will convene a committee of representatives from OLPP, DPH clinics, and DuPont Pediatric sites to evaluate the effectiveness of the protocols and recommend any changes that may be needed. Following the evaluation, and any changes if necessary, OLPP will conduct workshops for both the public health and duPont site staffs. This will be repeated biennially due to staffing changes and to provide quality control reviews.

OLPP will also provide outreach to physicians, starting in 2005, to review screening protocols and the new marketing theme discussed above.

Activities

1. Perform a quality control review of lead screening data. The purpose is to confirm whether data have been properly entered over the past year and are complete. Additional quality control reviews will be performed as needed.

2. Conduct analysis of lead screening data by:
   - Age of child initially tested;
   - Medicaid, WIC, and HCP eligibility;
   - Zip code;
   - Age of housing;
   - Address (to identify repeat offenders); and
   - In-state vs. immigrant status.

   The analysis will be repeated regularly to guide OLPP in developing its annual outreach and education plans and to confirm the adequacy of its lead screening protocols.

3. Review and update the lead screening protocols. Use a committee of OLPP, public health, and duPont clinic staffs to conduct a review and to develop recommendations.

4. Conduct workshops for both OLPP public health clinic staffs and the duPont pediatric site staffs on lead screening protocols.

5. Conduct outreach and training to labs that report lead levels to DPH. Training will focus on accurate completion of the reporting forms and will be repeated at regular intervals.

6. Continue giving priority to Medicaid, WIC, and HCP in lead screening.

7. Update the priority zip codes. This will flow from the analysis of lead screening data in item 2 above. Priority zip codes will be reviewed every three years.

8. Evaluate the feasibility of electronic reporting of screening data by laboratories. The CDC is promoting the use of electronic reporting. DPH is in support of electronic reporting. The question is how a shift to electronic reporting will be planned, paid for and implemented.

Evaluation Plan

Medical surveillance and screening activities are essential components of a comprehensive childhood lead poisoning program. An effective surveillance and screening program relies on continuing analysis of lead screening data and tailoring targeted efforts to changing needs and opportunities. The OLPP Director will assure that a quality control review of lead screening data is performed each year. In addition, there will be an analysis annually to determine whether priorities need to be shifted or whether new approaches are needed.

Even though all children must be tested prior to entering kindergarten, the essential need is to identify and test those children who are at high risk of lead poisoning at an earlier age, generally around 12 months as prescribed by Medicaid rules. This objective is currently being met by giving priority to Medicaid and WIC enrollees, and to targeted zip codes. However, a new analysis may identify other priority areas and suggest new techniques to reach children at risk of becoming lead poisoned.

Quality control reviews of lead screening data will also indicate whether additional training or workshops are needed with pediatric clinics or labs to assure that lead screening protocols are being followed and that data is being accurately and completely reported.